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Human Capital and Environmental Engagement of SMEs in Pakistan: A Comparative Analysis of the Leather Industry

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Abstract

Objectives: To examine how human capital influences the environmental engagement of SMEs in Pakistan's leather industry. Another objective is to explore the different motivations of SME owners and managers for adopting the pro-environmental behaviour in this industry sector.

Prior Work: The research is informed by literature on SMEs and environmental responsibility. Previous research has identified a number of internal and external drivers of, and barriers to, the environmental engagement of SMEs, but much of this research has focused on developed economies. Moreover, research looking specifically at the resources, capabilities and internal processes remains limited. Developing economy-focused research can complement and counterpoint the developed economy orientation of existing work. A focus on environmental practices of SMEs in less familiar cultural settings can also provide new insights.

Approach: The research study adopts a qualitative approach and uses multiple case study research design. Guided by the evidence collected in a preliminary literature review, purposive and snowball sampling techniques were used to select a suitable sample of SMEs. Semi-structured interviews were conducted, transcript evidence was combined with observational and documentary sources, and the cases were refined using thematic analysis technique.

Results: Contrary to prior research, which regards regulatory compliance as the leading motivation for environmental engagement among SMEs in developed economies such as the EU, this study suggests that, in Pakistan, a primary factor is the presence of, and commercial pressure from, environmentally-conscious customers. The variation in findings can be attributed in part to context-specific factors. Drawing on the human capital literature, this study found that owner managers with higher educational attainment, tended to be more aware of both the challenges and the opportunities in adopting new environmental practices. However, some of the educated owner-managers had a lower level of environmental awareness, which hindered the environmental engagement of their businesses. It also appears that the owner-managers in this study would be more likely to invest in such initiatives through economic incentives, rather than as a consequence of adopting a sustainability agenda or acknowledging a wider responsibility for the natural environment.

Value: The findings of the study are important in policy terms, given their focus on the enabling features of human capital in promoting environmental practices in developing economies. There is considerable scope for national governments and international donor agencies to launch environmental awareness programmes for SMEs, which should not simply educate entrepreneurs and employees, but also inspire them to pursue environmental opportunities.

1. Introduction

One of the major challenges of the twenty-first century is the environmental degradation, which has resulted in an increased level of environmental consciousness and concerns among different stakeholders across the globe. While different actors may be held responsible for damaging the natural environment, a considerable level of environmental issues are attributed to the activities of private sector enterprises (Gadenne et al., 2009). The result is that the consumers and other supply chain actors have started to put pressure on some companies to take measures for protecting the environment (Liu et al., 2012; Gold et al., 2010; Ciliberti et al., 2008). In response, some firms have started to take actions to reduce their environmental footprints (Revell et al., 2010). At the same time, governments have also started to take this issue more seriously and different policy interventions are introduced to mitigate the environmental impacts of businesses (Blundel et al., 2013). However, this is happening to varying degrees and is often constrained by lack of resources and/or other political priorities. Crucially, the public sector interventions for environmental improvement have mostly been steered towards large size firms (Blundel et al., 2013; Brammer et al., 2012; Parker et al., 2009). One of the major reasons for this may be the inability of SMEs to adopt environmental practices, mainly due to their resource scarcity (Tilley, 2000). Nevertheless, given the considerable presence of small and medium-sized enterprise (SMEs) in the economies worldwide, their environmental engagement, alongside the large size firms, is imperative to protect the natural environment (Williams and Schaefer, 2012; Battisti and Perry, 2011; Gadenne et al., 2009).

SMEs can be considered as micro-engines of macroeconomic growth. Not only their socio-economic and technological contributions are significant, the aggregate impact of SMEs on the natural environment is also considered to be huge (Gadenne et al., 2009; Williamson et al., 2006). In addition to that, just like their heterogeneous attributes across nations, cultures and sectors, the environmental impacts and practices of SMEs are also identified to be diverse (Brammer et al., 2012; Hamann et al., 2009). In the UK, for example, about 99% of the businesses are SMEs and they engage about 60% of the private sector workforce¹. At the same time, their contribution to commercial wastes is estimated to be 60% (Blundel et al., 2013). Likewise, in the European region 64% of the environmental impacts are estimated to be caused by SMEs (Calogirou et al., 2010). While the quantified environmental impact of SMEs can be traced for some developed countries, it is largely unmeasured in the context of developing economies. Nevertheless, the environmental issues of SMEs in developing economies are also significant. In Pakistan, for example, SMEs constitute 99% of the industrial landscape of the country with a contribution of about 40% to GDP and 30% to total export earnings². The environmental issues attached with these SMEs include; water pollution, air pollution, noise pollution, energy intensive production processes, wastage of raw materials, use of toxic chemicals causing health problems to employees, high volumes of solid wastes etc. While it is important to realise that SMEs, both in the developed and developing countries, have significant environmental impacts, it is even more crucial to explore what might enable these firms to adopt a pro-environmental behaviour (Hofmann et al., 2012).

In the past, environmental engagement of large size firms has been the main focus of researchers. According to Tilley (2000), it may be because SMEs were considered to be 'less worthy, less needy or less relevant research subject compared to large firms' (p.33). However, most recently, researchers have developed interest in understanding the environmental practices of SMEs (e.g. Blundel et al., 2013; Williams and Schaefer, 2012; Hofmann et al., 2012; Parker et al., 2009). Yet, much of this research has been done in the context of developed economies. Consequently, little is known about the environmental engagement of those SMEs that operate in the developing countries. It is important to appreciate that the SMEs of developing countries are unique to their own context. Generally, the SMEs in developing economies are considered to have an important role in addressing problems like unemployment, poverty and low growth. However, their potential to make a substantial contribution to economic growth has been identified to be constrained by the scarcity of resources³. These resources can include financial assets, technological competencies, knowledge and skill level of owner-managers and employees, networking with firms and infrastructural facilities. Given the uniqueness of SMEs of developing economies, it would therefore be valuable to investigate how these firms are coping with environmental challenges. In addition, hitherto, researchers have identified different motivations for SMEs' environmental engagement (e.g. Williams and Schaefer, 2012; Brammer et al.,

¹<http://webarchive.nationalarchives.gov.uk/20081112132956/berr.gov.uk/whatwedo/enterprise/enterprisesmes/index.html>

² http://www.finance.gov.pk/survey/chapter_12/03-Manufacturing.pdf

³ <http://www.ceauk.org.uk/2010-conference-papers/full-papers/Iftikhar-Hussain-CEA-final.pdf>

2012). The research that specifically looks at the internal processes, capabilities and resources that might enable SMEs to engage effectively with environmental issues is very limited indeed. Therefore, it would be valuable to explore the factors that might influence the ability of SMEs to deal with diverse environmental issues that they face. Hofmann et al. (2012) also support such a call for research by emphasizing that more research is needed to identify firms' capabilities as drivers of environmental practices.

To fill the gaps in literature, primarily, this paper aims to explore and describe the influence of human capital -as an enabling factor- on the environmental engagement of SMEs that operate in the leather industry in the Punjab province of Pakistan. A secondary objective is to explore the different motivations for the SME owners and managers for adopting pro-environmental behaviour in this industry sector. From an academic point of view, this is an important topic, especially, to increase our understanding of the factors that might enable SMEs to address their environmental challenges. The research in this area is also likely to benefit the public policy managers who look forward to raise the competence level of SMEs to get engaged with environmental initiatives.

Pakistan, being a developing economy and the uniqueness of its SMEs operating in the leather industry in terms of, for example, resources, capabilities, business opportunities, entrepreneurial mind-set, culture, and traditions, gives an opportunity to contribute to the literature. Some important reasons for proposing a research on this industry sector include; firstly, after textile and rice, leather products are the third largest contributor to the export earnings of the country (Table 1). Therefore, the leather industry carries great economic importance for the country, especially in terms of foreign exchange earnings. Secondly, destination-wise the leather exports from Pakistan are largely concentrated in the European markets⁴. The European buyers are much environmentally conscious. They expect their suppliers to be environmentally responsible. Thus the environmental requirements of the European buyers have implications for firms operating in this industry sector. Thirdly, the environmental issues attached with the leather industry are recognized to be significant. The major environmental challenges include wastewater discharge, solid waste disposal and air emissions⁵. Finally, the leather sector in Pakistan has recently been of considerable attention to the local authorities and international interventions for curtailing its environmental impacts⁶. All these factors establish a sound rationale for researching the environmental practices of SMEs operating in the leather industry in Pakistan.

Table 1
Major Exports from Pakistan (Percentage Share)

Commodity	06-07	07-08	08-09	09-10	10-11	Jul-Mar*	
						10-11	11-12
Cotton Manufacturers	59.7	51.9	52.6	50.6	52.9	53.7	50.1
Leather **	5.2	5.8	5.4	4.5	4.4	4.5	2.2
Rice	6.6	9.8	11.2	11.3	8.7	9.0	8.7
Sub-Total of three Items	71.5	67.5	69.2	66.4	66	67.2	61.0
Other Items	28.5	32.5	30.8	33.6	34.0	32.8	39.0
Total	100	100	100	100	100	100	100

* Provisional, ** Leather & Leather Manufactured

(Source: Economic Survey of Pakistan 2012-13, p.118)

The rest of the paper is structured as follows. In the next section we review the literature on different motivations for SMEs to adopt environmental practices and the role of human capital in environmental engagement of SMEs. This section is followed by a description of research approach adopted and the methods employed for data collection. Following the thematic analysis of the empirical data, we then present the environmental problems attached with the operations of SMEs in the leather industry. Furthermore, the perceived motivations for environmental engagement and the influence of human capital on the environmental practices of sample SMEs are explored and discussed. After some empirical insights, the discussion and conclusion are presented. Finally, the limitations of this study are acknowledged alongside the submission of implications for future research.

⁴ [http://www.pakistantanners.org/documents/statistics/Country-wise%20export%20performance%20of%20Leather%20and%20Leather%20Products%20\(2009-10\).pdf](http://www.pakistantanners.org/documents/statistics/Country-wise%20export%20performance%20of%20Leather%20and%20Leather%20Products%20(2009-10).pdf)

⁵ <http://www.environmental-expert.com/Files/0/articles/2226/2045.pdf>

⁶ http://www.lead.org.pk/attachments/mtd/mtd50/attachments/fellow_case_study.pdf

2. Prior Research on the Environmental Practices of SMEs

The following sections illustrate the literature on environmental practices of SMEs. In particular, the possible motivations for environmental engagement and the influence of human capital on the environmental practices of SMEs are discussed.

2.1 Environmental Engagement among SMEs: Possible Motivations

2.1.1 The Compliance with Environmental Regulations

A likely common motivator for SMEs to operate in an environmentally-benign way is the compliance with environmental regulations. However, the exact impact of environmental legislation on environmental practices of SMEs is not known. A recent qualitative study, for example, explores that 'the implementation of environmental legislation has not been effective' for SMEs in UK - mainly due to lack of 'familiarity' and 'understanding' about the environmental laws (Wilson et al., 2012). At the same time, some survey-based studies reveal that compliance is a cost for SMEs and therefore reduces their profitability (Mir, 2008; Patton and Worthington, 2003). Yet, to ensure their survival, SMEs comply with regulations (Patton and Worthington, 2003). However, such compliance at a bare minimum level might place SMEs at a reactive end towards their environmental commitments (Mir, 2008; Bradford and Fraser, 2008; Revell and Blackburn, 2007). While some authors have considered SMEs' compliance with regulations as reactive and only doing the bare minimum and are therefore not considering legislation as very effective, other authors see regulation as the chief means of engaging SMEs with environmental issues and would like to see more regulation (Masurel, 2007; Revell and Rutherford, 2003; Tilley, 1999). In one UK study, for example, owner-managers of SMEs were identified to be happy to 'accept the costs of tougher environmental regulations and taxation' (Revell et al., 2010). This was mainly because the SMEs in that study perceived environmental opportunities and competitive advantage in compliance, although in the long-run. Given the difficulties of SMEs to follow environmental regulations, some authors have argued that SMEs would take time to be considerably driven by legislation because they lack capabilities to observe these rules (Wilson et al., 2012; Williamson et al., 2006). It may imply that legislation can be considered a motivation for environmental engagement among SMEs, provided regulations are comprehensible and their implementation is not much resource intensive (Williamson et al., 2006).

2.1.2 The Economic Rationale

A second motivation for SMEs to adopt environmental practices may be profitability and competitiveness. According to Collins et al. (2007), green business practices might not only affect the financial performance of SMEs but also their competitiveness. Similarly, Thorpe and Prakash-Mani (2003) argue that environmental initiatives benefit SMEs and these benefits might come in the form of reduced costs, increased revenues and enhanced reputation. Supporting Collins et al. (2007) and Thorpe and Prakash-Mani (2003), Fresner and Engelhardt (2004) in their case-study based research on Australian small firms find that the adoption of environment-conscious strategies helps SMEs to reduce cost. In a quantitative study of US small businesses, Naffziger et al. (2003) also identify a positive association between environmental concerns, operational efficiency, profit and image of firms. Conversely, some other researchers argue that SMEs are not convinced by the argument of business case for sustainability. Simpson et al. (2004), for example, assert that environmental responsibility serves as a cost to SMEs in UK and therefore entrepreneurs are not motivated to voluntarily adopt pro-environmental practices. Revell and Blackburn (2007) support the findings of Simpson et al. (2004) through their case study based research on the construction and restaurant sectors of UK. They argue that the small firms in UK consider pro-environmental practices a drain on profits. These studies indicate that just like the argument of compliance for sustainability the exact impact of environmental practices of SMEs on profitability and competitiveness is not known. It seems difficult to establish with certainty whether the business case for sustainability generally applies because SMEs are complex and heterogeneous, in terms of their characteristics and the contexts in which they operate.

2.1.3 Personal Values of Owner-managers

Generally, owner-managers of SMEs start ventures which resonate their 'personal aspirations and philosophies' (Williams and Schaefer, 2012). It is therefore hard to isolate the influence of owner-managers' personal values from the vision and practices of their enterprises (Williams and Schaefer, 2012; Collins et al., 2010; Revell et al., 2010; Battisti and Perry, 2010). Thus, environmental values of owner-managers can be a possible motivator for environmental engagement among SMEs. In a

qualitative study, while exploring the motivations for environmental engagement in the SMEs in UK, Williams and Schaefer (2012) have found that managers' values play an important role in their pursuit of environmental practices. Williams and Schaefer (2012) conclude that while advisory services tend to campaign on the basis of the business case for sustainability, their emphasis should be more on promoting value-driven environmental engagement in SMEs. These findings are supported by studies outside the UK context. For example, Battisti and Perry (2010) describe that in New Zealand, in addition to the motivations of cost saving and competitive advantage, environmental practices of SMEs are also driven by the personal ethical values of owner-managers. Similar findings are reported for SMEs operating in the US wine industry (Cordano et al., 2010). This study asserts that environmental engagement of SMEs and their owner-managers' attitudes and norms are significantly associated.

Researchers have identified various motivations for SMEs to adopt environmentally responsible business practices, including compliance with regulations (e.g. Wilson et al., 2012), profitability and competitiveness (e.g. Collins et al., 2007) and personal ethical values (e.g. Williams and Schaefer, 2012). Although this research has generated new insights, relatively less attention has been paid to what enables the environmental practices of SMEs, such as human capital. The following subsection of literature review is focused at the role of human capital in environmental engagement of SMEs.

2.2 SMEs and the Enabling Factors of Environmental Engagement: The Role of Human Capital

Individuals (owner-managers and employees) are an important asset of SMEs. The human capital embedded in these individuals carries implications for SMEs to engage in diverse economic and social activities, including environmental practices. Human capital represents the knowledge and skills that individuals learn through formal and informal sources (Davidsson and Honig, 2003; Becker, 1964). According to Dakhli and Clercq (2004), human capital can be classified as human-specific capital, firm-specific capital and industry-specific capital. The human-specific capital includes academic education, vocational training and managerial and entrepreneurial experience of individuals. Human-specific knowledge can be used across firms and industries. The firm-specific capital refers to the knowledge and skills that individuals accumulate and develop while working in a specific firm. The application of firm-specific knowledge and skills is strict to a firm's context and therefore is not applicable across firms and industry. The third form of human capital, industry-specific capital, represents the knowledge and skills individuals may gain while working in a specific industry. Industry-specific human capital can be used across firms and industry.

Through human capital development individuals can learn new knowledge and skills to do things in new ways (Coleman, 1988). This knowledge and skills can come through two sources i.e. tacit and codified. Tacit knowledge (know-how) comes through learning by doing whereas codified knowledge (know-what) is embedded in processes and procedures (Davidsson and Honig, 2003). Knowledge and skills become even more valuable when they are complemented by experience. Increased human capital can lead to an increase in the productivity and efficiency of individuals. Therefore, if environmentally driven opportunities arise, SMEs better endowed with environmentally relevant human capital may pro-actively adopt environmental practices. Whilst there is limited literature that examines the impact of human capital on environmental practices of SMEs, a few studies can be traced. For example, Gadenne et al. (2009), Cloquell-Ballester et al. (2008), Schaper (2002) and Tilley (2000). Although these studies do not exclusively examine the interplay between human capital development and environmental engagement of SMEs, yet considering the dearth of literature in this strand these can be regarded as indicative examples.

The study by Schaper (2002) is focused on the identification of predictors of environmentally responsible behaviour of SMEs operating as retail pharmacies in Western Australia. This study indicates that formal education of owner-managers is not a significant predictor of green practices of SMEs. Another study (Gadenne et al., 2009) investigates the environmental practices of SMEs in the Queensland region in Australia. In contrast with Schaper (2002), Gadenne et al. (2009) not only consider the formal educational level of entrepreneurs but also their environmental awareness as predictors of environmental practices of SMEs. Their findings, similar to Schaper (2002), suggest that formal education of owner-manager does not significantly inform the environmental engagement of SMEs. However, the environmental awareness of owner-managers is identified to be a significant predictor of environmental practices of SMEs. Both these studies conclude that relative to formal education, the informal learning about environmental issues and access to environmental information (for example, through suppliers and environmental educational interventions) are better predictors of environmental engagement of SMEs. A significant limitation of these studies is that these only focus on owner-managers, whereas employees would also seem to be a crucial resource for SMEs

(Cloquell-Ballester et al., 2008). To some extent, Tilley's (2000) study can be considered to have taken into account both the owner-managers and employees. According to Tilley (2000), 'Low standards of eco-literacy are common among small firm owner-managers and employees, which in turn reduces their awareness of environmental issues' (p.35). To address this weakness, Tilley (2000) has proposed that 'Since the owner-manager has a low awareness of environmental issues combined with a low level of ecoliteracy, small firms must rely on external experts to guide their decision-making processes and to provide them with appropriate solutions to environmental problems' (p.37). This finding by Tilley (2000) is also confirmed by Gadenne et al. (2009), who have identified that environmental awareness of owner-managers informs the environmental engagement of SMEs.

Some entrepreneurs may take initiatives to develop environmentally relevant competencies of their employees. Most common measures can be the arrangement of environmentally relevant trainings and awareness programmes (Cloquell-Ballester et al., 2008). At the same time, eco-conscious employees might also take steps to behave pro-environmentally. They may, for example, opt for transport sharing with their colleagues and get environmental certifications to increase their environmentally relevant stock of skills and experience (Williams and Schaefer, 2012; Brammer et al., 2012). Although, the studies by Williams and Schaefer (2012) and Brammer et al. (2012) do not specifically focus on environmentally relevant human capital development but at least tell something about employee related initiatives taken for environmental engagement amongst SMEs.

The review of literature indicates that human capital can have implications for SMEs to adopt environmental practices. However, crucially, this strand of literature is significantly under-researched. Consequently, an important purpose of this research study is to contribute to this stream of literature.

3. Research Methodology

Given the exploratory nature of this research, the study is framed within the qualitative tradition of research (Yin, 2009; Easterby-Smith et al., 2008; Bryman and Bell, 2007; Williamson et al., 2006; Eisenhardt, 1989). A primary aim of qualitative research is to facilitate the 'general understanding of the situation' through the availability of 'rich data' (Easterby-Smith et al., 2008, p.59), which helps to comprehend and describe the complexity of issues rather than achieving generalization like the quantitative research approach (Easterby-Smith et al., 2008, p.57).

For the collection of empirical data, one of the researchers conducted semi-structured in-depth interviews between June 2013 and July 2013 with seven owner-managers and one senior manager of the SMEs established in Sialkot and Sheikhpura districts of the Punjab province in Pakistan. Most of the firms in these two regions not only serve the local market but are also well engaged with the export activities, thus better complement the purpose of this study. A two pronged strategy was adopted to select the participants. Initially, the owner-managers of purposively selected SMEs from the database of Sialkot Chamber of Commerce were contacted through telephone. Once access was gained to some SMEs, snowball sampling was used to gain access to some other SMEs in Sialkot and Sheikhpura districts.

All the interviews were pre-arranged, conducted at a distance and were digitally recorded (mostly video recoded), using Skype. On average, an interview lasted for 30 to 45 minutes. Where considered necessary, unplanned probes were used to develop better understanding of the issues. For this purpose, the laddering technique of interviewing was effectively used (Easterby-Smith et al., 2008, p.146). To ensure that focused and relevant information was gathered, an interview schedule covering the broader research questions was drafted. Just like some earlier studies, for example Williamson et al., (2006), the development of interview schedule was informed by the literature and further refined during initial interviews.

Considerably, this study has benefited from the deliberate choice of using Skype instead of telephonic interviews. Skype helped to have more interactive discussions and spontaneous responses, in addition to the recording of facial expressions of the interviewees. So, it was much like conducting a real life face-to-face interview. Unlike a telephonic interview, the visual presence of researcher raised the comfort level of interviewees as they could see who they were talking to. Mostly, the interviews were conducted when owner-managers were in their offices. The researcher found himself in a better position to stop or continue interviewing by seeing if the owner-managers had to deal with some business affairs or talk to their staff or customers. In case of a telephonic interview owner-manager could ask to call-back in a while, which could lose access as the entrepreneur could get too busy to continue discussion. Thus, to some extent, Skype kept researcher's presence on the site and therefore facilitated the smooth flow of data gathering.

The transcribed interviewees were analysed using the Thematic Analysis Approach (Braun and Clarke, 2006; Creswell, 2003; Miles and Huberman, 1994). While some researchers argue that thematic analysis is a generic tool of qualitative data analysis (e.g. Creswell, 2003; Boyatzis, 1998), Braun and Clarke (2006) hold that 'thematic analysis should be considered a method in its own right' (p.78). According to Braun and Clarke (2006); 'thematic analysis is a method for identifying, analysing, and reporting patterns (themes) within data' (p.79). The findings of thematic analysis are presented and discussed in the following section.

4. Empirical Findings

We first present the environmental problems of SMEs of the leather industry in Sialkot and Sheikhupura districts in Pakistan. Then, different motivations for addressing the environmental problems are described. Subsequently, the influence of human capital on the environmental engagement of sample SMEs is elaborated.

4.1 Perceived Environmental Problems

The findings show that the SMEs in leather industry in Sialkot and Sheikhupura districts in Pakistan are facing diverse environmental problems. Amongst these, a leading issue is water pollution. Relatively, the secondary level problems include air and noise pollution (Table 2). For water pollution, the main source is waste water discharged while tanning the hides. On the other hand, generally, the air and noise pollution are caused by generators, which are run to address the problem of shortage of electricity.

Razi (Owner-manager SME2): I think the major cause [of environmental problems] is water, the water that we throw into the drains...The main impact comes from water...I think so, it is waste water...Of course, generators [also] cause pollution...Generators are noisy and cause pollution...

Table 2
Perceived Environmental Problems of the Leather Sector in the Punjab Pakistan

	SME 1	SME 2	SME 3	SME 4	SME 5	SME 6	SME 7	SME 8
Water Pollution	✓	✓	✓	✓	✓	✓	✓	✓
Air Pollution		✓			✓			
Noise Pollution		✓		✓		✓		
Decline in the Productivity of Land	✓	✓	✓	✓	✓			
Adverse Impacts on Individuals' Health	✓	✓	✓	✓	✓	✓		
Extensive Fuel Consumption through Generators		✓	✓		✓	✓		
Marine Life Dying		✓		✓				
Damage to Ozone Layer		✓						

(Source: Skype-Based Interviews, June–July 2013)

The most common negative impacts of different types of pollution include; the decline in productivity of land, adverse effects on the health of individuals, intensive use of natural resources in the form of extensive fuel consumption, the death of marine life and damage to the ozone layer (Table 2).

Razi (Owner-manager SME2): ...if we see we do wrong in our tanneries...The waste water...[that] is used to irrigate vegetables is causing diseases...like hepatitis C, B and a lot of cancers...

Yaqoob (Owner-manager SME4): When the waste (water) is drained into main drains, fish and other animals die due to its hazardous effects. We often see while passing by the drains that dead fish are floating on the surface of water.

4.2 Perceived Motivations for Adopting Environmentally Responsible Business Practices

Not only the interviewees had the realisation that different environmental problems were attached to their businesses, some of them were also motivated to address these issues. At the same time, some others were least interested to take pollution prevention measures.

For those who were motivated, the primary driving force was the pressure from their customers - mainly the international customers (Table 3). This finding contrasts with the results of some of the earlier studies (e.g. Brammer et al., 2012), which regard the pressure from customers a lower level of motivation for environmental engagement among SMEs in developed economies. Considerably, in this research, compared to the literature on developed countries, the compliance with regulations was not perceived to be a leading motivation for adopting environmental practices (Revell et al., 2010; Masurel, 2007; Williamson et al., 2006). Rather, pressure from government was regarded as secondary level motivation alongside the support from the government (Table 3). The other motivations include; brand targeting, increased goodwill of the firm and voluntary initiatives to protect the environment. These findings suggest that primarily the sample SMEs take pollution prevention measures for better reputation to exploit economic opportunities by portraying themselves as environmentally responsible units.

Razi (Owner-manager SME2): ...different bans [are] imposed by the European countries...now they are implementing REACH test. They [EU] will buy [leather] from Pakistan or from any other country only if REACH test is measured.

Fahad (Owner-manager SME3): ...government also exerts pressure. Our department of environment, their representatives keep visiting us...but as such that too is not a big pressure...But yes, from the export point of view, all tanneries want to deal with this issue because they think if exports face this pressure then they shall have to take all the measures.

Yaqoob (Owner-manager SME4): If we have [environmental] certifications that raise the goodwill of our company...

Table 3
Perceived Motivations for Environmental Engagement

	SME1	SME2	SME3	SME4	SME5
Customer Pressure	✓	✓	✓	✓	✓
Government Pressure		✓	✓		
Government Support	✓		✓		
Brand Targeting					✓
Goodwill of the Firm				✓	
Voluntary Initiative	✓				

(Source: Skype-Based Interviews, June–July 2013)

Those SMEs that were not interested in environmental engagement, consistently described that there was no pressure on them from their customers to become environmentally responsible suppliers (Table 4). Generally, such SMEs work with small size customers instead of the leading brands in the market, which could exert pressure on them to take environmental protection measures. In addition to that, these SMEs regard the attainment of environmental certification an extra financial burden. For them, the registration with the chamber of commerce was sufficient to satisfy their customers. The owner-managers of these SMEs described that customers would be interested to only know if the firm which they were going to deal with was registered and that if it was safe to do business with that firm. Some of these owner-managers also asserted that environmental protection did not concern them. For them, most important thing was to ensure that their businesses run.

Durraiz (Owner-manager SME6): ...major customers like Nike, Adidas etc. who deal with large size units, they might be asking for...[environmental] certifications. We deal with small customers who do not ask for environmentally relevant certifications.

Asjal (Owner-manager SME7): ...they [customers] do not exert any pressure about [environmental] certificates...what the customer might do is to check with chamber if our company exists and that it is not a fake company...As you have got information about us from the chamber.

Durraiz (Owner-manager SME6): ...it [environmental certification] is an extra burden. It just adds to our costs. It is possible for large size firms to engage with such kind of activities....

Table 4
Perceived Reasons for Environmental Disengagement

	Reasons for Environmental Disengagement
SME6	Absence of pressure from customers Environmental Certification is an extra burden Working with non-branded small size customers
SME7	Absence of pressure from customers
SME8	Absence of pressure from customers

(Source: Skype-Based Interviews, June-July 2013)

Now when it is identified that some SMEs in the leather sector are motivated to take pollution prevention measures, it is imperative to understand that what might enable them to transform their motivations into practice. To address this, in the following section, we explore the role of an enabling factor i.e. the human capital.

4.3 Human Capital and the Environmental Engagement of SMEs

The human capital, as is discussed earlier, can be categorised as general and specific human capital (Dakhli and Clercq, 2004; Gimeno et al., 1997). Therefore, for this study, information about general human capital and specific human capital was gathered and analysed. Regarding general human capital, the data about academic qualification of owner-managers and their previous experience of doing business were analysed. Within specific human capital, information about leather related qualification of owner-managers, their environment-specific qualification and previous engagement with the leather industry was analysed. Due to the mode of access (Skype based interviews); it was hard to directly access employees for gathering the information. Therefore, some information about employee related human capital was gathered from the interviewees, most of whom were owner-managers.

According to the data, most of the owner-managers, who participated in this research, were educated (Table 5). While some entrepreneurs had attained master level degrees, the others had completed under-graduate studies. However, few SMEs were managed by uneducated entrepreneurs as well. Considerably, in this study, all the environmentally engaging SMEs were managed by educated entrepreneurs and most of the environmentally non-engaging SMEs were run by uneducated owner-managers. Regarding previous experience of doing business, only one entrepreneur described that before joining the leather industry he was doing some other business (was running a textile unit).

The data on specific human capital (Table 6) represents that none of the owner-managers had gained formal education either of leather processing or of the environment. Most of them have been learning through informal sources. Crucially, none of the owner-managers of environmentally non-engaging SMEs was identified to be developing environment specific human capital even through informal sources. Regarding previous engagement with the leather industry, three owner-managers described to have industry related experience. One of these had worked in a tannery whereas the other two had served as employees in leather garment manufacturing units.

Overall, tables 5 and 6 show that the owner-managers had accumulated general human capital mostly through formal sources, whereas specific human capital was accumulated through informal sources. The main sources of informal learning were described to include; the seminars and workshops arranged by the local Chamber of Commerce, environment-specific educational interventions by the Government of Pakistan (though largely absent now), discussion with experienced entrepreneurs, learning through observing the shop floor activities and discussion with employees. Another source of informal learning was described as self-reading (through books and access to internet based information).

Fahad (Owner-manager SME3): ...we need to know more than what the labour knows...we study from a book or use internet or learn from more experienced people who are already in the field...we have to study to get the work done from them.

Table 5
General Human Capital Embedded in Owner-Managers

	SMEs	Academic Qualification	Previous Experience of Doing Business
Environmentally Engaging SMEs	SME 1	Bachelors of Arts	No
	SME 2	Masters	Yes (Owned a textile unit)
	SME 3	Masters (MIS)	No
	SME 4	Bachelor of Commerce	No
	SME 5	Post-Graduation	No
Environmentally Non-Engaging SMEs	SME6	Bachelors of Arts	No
	SME7	No Education	No
	SME8	No Education	No

(Source: Skype-Based Interviews, June–July 2013)

Table 6
Specific Human Capital Embedded in Owner-Managers

	SMEs	Leather Related Qualification		Environment-Specific Qualification		Previous Experience from Leather Sector
		Formal	Informal	Formal	Informal	
Environmentally Engaging SMEs	SME 1	No	Yes	No	Yes	No
	SME 2	No	Yes	No	Yes	No
	SME 3	No	Yes	No	Yes	No
	SME 4	No	Yes	No	Yes	Yes (as an employee in a tannery)
	SME 5	No	Yes	No	Yes	No
Environmentally Non-Engaging SMEs	SME6	No	Yes	No	No	No
	SME7	No	No	No	No	Yes (as an employee in a leather garment firm)
	SME8	No	Yes	No	No	Yes (as an employee in a leather garment firm)

(Source: Skype-Based Interviews, June–July 2013)

An important reason, described by the owner-managers, for not getting industry specific and environment specific qualification was the absence of need and requirement of leather related qualification to start a business. It was described, if entrepreneurs did not have experience, knowledge and skills then this vacuum of human capital could be filled by hiring qualified employees. Therefore lack of managerial, technical and environment specific capabilities might be circumvented by engaging competent staff. Thus, contrary to some earlier studies (e.g. Schaper and Raar, 2001), the inability to engage competent staff to pursue environmental practices may not be regarded a major hurdle for some of the sample SMEs.

Zaki (Owner-manager SME1): *Very few [entrepreneurs] get it [industry related qualification]. Mostly do not....if someone wants to start a business here it is not compulsory for him to first have diploma and then start a business. Now in our city...our top business community is not very well educated but the workers who are employed and are working they are all qualified. They [workers] mostly deal all the business affairs.*

Razi (Owner-manager SME2): *I did not go for any kind of qualification related with leather industry. I hire a manager and a general manager over there. They are qualified people and do each and everything for me.*

Despite the engagement of competent staff, it was described, the decision to adopt environmental practices would largely come from the owner-managers. For some SMEs, where owner-managers lacked technical and environmental knowledge, the availability of industry-experienced and environmentally qualified staff would not necessitate environmental engagement. Although owner-managers might gain environmental information through their staff, but in some SMEs the lack of willingness of owner-managers to invest in environmental measures might hinder the adoption of environmental practices. For such SMEs, lack of eco-literacy (Tilley, 1999) and access to environmental information and awareness (Gadenne et al., 2008; Schaper, 2002) might not serve as a barrier to environmental engagement, but the absence of willingness of owner-managers would do.

Fahad (Owner-manager SME3): *...the 'Seth' [local term used for an entrepreneur/owner-manager] who is sitting, he is not that technical...mostly the 'Seths' of our industry are not technical. Because they are not technical, they are not ready to accept what others say. So when they are not ready to listen to others, then it is running as it is running since years.*

Razi (Owner-manager SME2): *Look, everyone has knowledge but when it comes to costing everyone closes eyes.*

Ali (Senior manager SME5): *Awareness is there...willingness is absent...Who is willing to do it and its cost, the annual cost, who wants to bear it....*

While some owner-managers were not willing to invest in environmental measures, the others had identified economic opportunities in waste reduction and pollution prevention measures. Generally, such owner-managers were better qualified having better environmental knowledge and awareness. This finding contrasts with literature, which regards owner-managers as 'ill-informed' about the advantages of adopting environmental practices (e.g. Brammer et al., 2012). For example, in an SME, owned by an educated entrepreneur and having competent managers, employees were regularly given lecture to reduce waste to control pollution and therefore the economic losses.

Razi (Owner-manager SME2): *Look if our trimming losses turn out to be large all the profit shall be drained. We give them [employees] a lecture of about 30 minutes every day to try to minimize trimming so that not much waste is generated and gathered because waste causes pollution. So, we try to minimize it as much as possible. So, we make them listen to us every day. If we do not do this then they will significantly increase the volume of wastes.*

Overall, the empirical findings reveal that the attainment of formal education and/or informal learning does not necessarily seem to influence the environmental engagement of the sample SMEs. Despite being educated, while some entrepreneurs were adopting environmental practices the others were still passive and hesitant in adopting these. Crucially, the environmental practices of SMEs in the leather industry in Pakistan seem to be less influenced by the availability of environment-specific human capital and more by the willingness of owner-managers to invest in environmental measures.

5. Discussion and Conclusion

Motivated by the gap in literature that environmental practices of SMEs are least researched in the context of developing economies and that little is known about the factors that might enable the environmental engagement of SMEs this research mainly aimed to explore the role of human capital in capacitating the SMEs to take environmental protection initiatives. A secondary purpose was to explore the possible motivations for environmental engagement among the leather firms in Sialkot and Sheikhpura districts in Pakistan. By achieving its aims, this research claims to contribute to the literature by describing the environmental practices of SMEs in a developing economy i.e. Pakistan. At

the same time, this research also responds to the call for research to identify the firm level processes, resources and capabilities that might enable the environmental engagement of SMEs (Hofmann et al., 2012) by explaining the influence of human capital (as an enabler) on the environmental practices of SMEs in the leather industry.

The initial findings suggest that water pollution is the major environmental issue for SMEs in this industry sector: it is a source of several different diseases in the local community, reduces the productivity of agricultural land, and is also causing death of marine life. Other, less severe, issues include air and noise pollution, identified locally as sources of mental stress and depression. Most of the sampled SMEs are taking some initiatives to reduce their environmental impacts. Measures include the use of environment-friendly inputs, getting environmentally-certified, adopting resource-saving practices and pollution prevention measures. Although such actions are consistent with the developed economy literature, some country and industry-specific initiatives have been identified. These include installation of water treatment plant and reducing exhaust pollution from generators.

Contrary to prior research, which regards compliance with regulations as the leading motivation (e.g. Williamson et al. 2006) this study suggests that a primary factor is the presence of, and commercial pressure from, environmentally-conscious customers. The variation in findings can be attributed in part to context-specific factors. For example, there is evidence to suggest that the implementation of existing legislation is relatively weak in Pakistan. This is due to a number of factors including governmental agencies having a less developed interest in environmental issues, coupled with a lack of competency amongst local officials responsible for inspecting SMEs in this sector. The findings also show that the SMEs in Pakistan's leather industry behave differently, as compared to those in developed economies such as the EU, where governments are more sensitive to environmental issues and compliance is more strictly monitored. The study found that environmentally *non*-engaging SMEs attributed their lack of engagement to an absence of pressure from their customers. This was often because they were working with smaller customers, who were oriented towards domestic markets.

Drawing on the human capital literature (e.g. Dakhli and Clercq 2004), this study has found that amongst the sample SMEs 'general' human capital was accumulated through formal sources while development of 'specific' human capital takes place through informal sources. Where owner-managers lacked capabilities to run their businesses effectively, they hired staff to complement their efforts. Owner managers with higher educational attainment, tended to be more aware of both the challenges and the opportunities in adopting new environmental practices. Some owner managers, despite being academically qualified, had a lower level of environmental awareness, which hindered the environmental engagement of their businesses. This is consistent with Gadenne et al. (2009), who argued that the level of formal educational attainment of SME owner-managers is not a significant predictor of environmental practices. Rather, the underlying obstacle may be a lack of 'eco-literacy' on the part of their owner-managers, as the decision to adopt environmental practices appears to remain ultimately at their discretion. Some firms in the sample had also been slow to engage with these practices, despite having competent staff in place. This finding contrasts with the notion that a higher quality of human capital 'inputs' should contribute to superior 'outputs' (Diochon et al. 2008: 153). In such situations, disengagement from environmental commitments can be attributed to lack of willingness of owner-managers to make the necessary investments. It also appears that the owner-managers in this study would be more likely to invest in such initiatives through economic incentives, rather than as a consequence of adopting a sustainability agenda or acknowledging a wider responsibility for the natural environment.

The findings of this study are important in policy terms, given their focus on the enabling features of human capital in promoting environmental practices in developing countries. The findings suggest that there is considerable scope for national governments and international donor agencies like UNIDO to launch environmental awareness programmes for SMEs. The rationale is that well-designed and executed interventions could promote large-scale improvements in both the commercial and environmental performance of this industry. The findings also indicate that awareness programmes should aim, not simply to educate entrepreneurs and employees, but also to inspire them to pursue environmental opportunities.

6.3 Limitations of this study and the implications for future research

While this research has provided new insights about the environmental practices of SMEs from a developing economy's perspective, it admittedly has some limitations. The focus of this research on two districts (Sialkot and Sheikhpura) implicates a limitation that the findings are context specific and

therefore are not generalizable across the industry as well as sectors. How SMEs established in other regions (for example, Kasur, Lahore and Karachi) may respond to the research issues can bring further insights about the research topic. In addition to that, this study has tried to explore the role of human capital as an enabling factor of the environmental practices of SMEs; future research can expand the list of enabling factors.

Given the present state of research on environmental practices of SMEs, both in the context of developed and developing countries, it may be said that this is a fairly nascent area of research in the management literature and, therefore, would experience the 'Patagonia picnic table effect' for some time before it gets established as an independent field. Thus researchers have a good opportunity to contribute to this emergent stream of literature.

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